



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,461	11/26/2003	Howard R. Lahti	2006	5950
24264	7590	08/19/2004	EXAMINER	
TIMOTHY J MARTIN, PC 9250 W 5TH AVENUE SUITE 200 LAKEWOOD, CO 80226			LEUNG, RICHARD L	
			ART UNIT	PAPER NUMBER
			3744	

DATE MAILED: 08/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/723,461

Applicant(s)

LAHTI ET AL.

Examiner

Richard L. Leung

Art Unit

3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 26 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 4 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 4 recites the limitation, "wherein said mass is non-porous." However, this limitation is already recited by claim 2 from which claim 4 depends.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claim 17 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what is meant by the limitation "of a common size," which may simply mean having the same size, or it may be interpreted as a reference to the physical size.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 3744

5. Claim 1, 5, 6, 11, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 4325230 (Driscoll et al.). Driscoll et al. disclose a device, a plastic ice cube 10, for use with a beverage in order to cool the beverage. Said plastic ice cube 10 inherently has a mass volume, and it is clear from Figures 2 and 6 that said plastic ice cube 10 may take the form of a polyhedron having faces, particularly a cube. Although said plastic ice cube 10 contains water, the plastic ice cube itself is understood to be in a solid state at a temperature of about 72 degrees F, especially since it is recited that the principal object of the invention is to provide an ice cube which cannot melt (column 1, line 13-14). It is disclosed that said ice cube 10 is placed in a selected environment, a freezer, inherently at a first temperature that is less than the ambient temperature at which the beverage is to be served for a first interval of time. Since the purpose of placing said plastic ice cube 10 in the selected environment (a freezer) is to freeze the water contained within said plastic ice cube 10, it is inherent that said selected environment is at a temperature less than about 32 degrees F, since that temperature represents the temperature at which water begins to freeze. Although Driscoll et al. does not expressly disclose that said first temperature is 0.0 degrees F, as required by claim 12, it is understood from the present specification on page 11, lines 3-4 and 6-7 that said temperature of 0.0 degrees F merely represents the temperature available in a freezer, particularly a household freezer. Therefore, Driscoll et al. inherently demonstrates this requirement since said plastic ice cube 10 is disclosed as being placed in a freezer. Furthermore, it is clear that said plastic ice cube 10 is

Art Unit: 3744

removed from said selected environment (a freezer) after the first interval of time and is placed together with a quantity of liquid beverage in a selected vessel. It can be understood from Figure 1 that said vessel inherently has a vessel volume at least equal to the mass volume and the quantity of liquid to be cooled.

6. Claims 1, 11 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by "Large Cooling Stones" (hereinafter Vance). Vance discloses a method for cooling a liquid beverage by replacing ice with rocks (stones). Vance demonstrates placing at least one mass of material (stone) inherently having a mass volume and being in a solid state at a temperature of about 72 degrees in a selected environment at a first temperature (a freezer or colder environment) that is inherently at a temperature less than the ambient temperature at which said beverage is to be served for a first interval of time. The frozen mass of material (stone) is then placed together with the liquid beverage to be cooled. It is inherent that the mass of material and the liquid beverage are placed in a selected vessel that has a vessel volume at least equal to the mass volume and the quantity of liquid beverage to be cooled. Take note that references are made to the stones being at the "bottom of the drink" or being at the "bottom of the glass." Although Vance does not expressly disclose that said first temperature is less than about 32 degrees F as required by claim 11, or 0.0 degrees F, as required by claim 12, it is understood from the present specification on page 11, lines 3-4 and 6-7 that said temperature of 0.0 degrees F merely represents the temperature available in a freezer, particularly a household freezer. Therefore,

Art Unit: 3744

Vance inherently demonstrates these requirements since said stone is disclosed as being placed in a freezer, or colder environment.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2-4, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Large Cooling Stones" (Vance) in view of US Patent No. 4081024 (Rush et al.). Vance discloses a method for cooling a beverage by replacing ice with rock (stone), as already discussed above. Vance fails to disclose that said rock is nonporous igneous rock, specifically granite, and has a heat capacity of about 10.6 calories/degree-mole. It would have been obvious to one of ordinary skill in the art to have used granite as the rock material in the method disclosed by Vance because granite is a rock material with high thermal capacity, as evidenced by Rush et al. (column 8, lines 4-6), and therefore absorbs a relatively large amount of heat before changing temperature, a property useful in cooling beverages. It is understood that granite is inherently a non-porous igneous rock and inherently has a heat capacity of about 10.6 calories/degree-mole.

9. Claim 5, 6, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Large Cooling Stones" (Vance). Vance discloses a method

Art Unit: 3744

for cooling a beverage by replacing ice with rock (stone), as already discussed above. Vance does not disclose expressly that the mass (stone) is in the shape of a polyhedron having faces or is a cube. It would have been an obvious matter of design choice to a person of ordinary skill in the art to have cut and polished the stone into a polyhedron or cube because Applicant has not disclosed that having the mass be a polyhedron provides an advantage, is used for a particular purpose, or solves a stated problem. Official notice is taken that it is old and well known to cut and polish stone into polyhedron shapes such as cubes. With regards to claim 14, official notice is also taken that it is old and well known to have ice cubes in a selected environment (freezer) for an interval of time such that said ice cubes reach an equilibrium temperature state with said selected environment (freezer). It would have been obvious to one of ordinary skill in the art to have placed the stone disclosed by Vance in the selected environment (freezer) for a first interval of time such that the stone reaches an equilibrium temperature with the freezer, as is old and well known, because such an interval of time would allow the stone to reach the lowest possible temperature in the selected environment and therefore provide the greatest cooling power when combined with the beverage.

10. Claim 7 rejected under 35 U.S.C. 103(a) as being unpatentable over "Large Cooling Stones" (Vance) as applied to claim 5 above, and further in view of US Patent No. 4081024 (Rush et al.). Vance discloses a method for cooling a beverage by replacing ice with rock (stone), as already discussed above, and it would have been an obvious matter of design choice to a person of ordinary skill

Art Unit: 3744

in the art to have cut and polished the stone into a polyhedron, an old and well known procedure, because Applicant has not disclosed that having the mass be a polyhedron provides an advantage, is used for a particular purpose, or solves a stated problem. Vance does not disclose expressly that the mass (stone) is granite. It would have been obvious to one of ordinary skill in the art to have used granite as the rock material in the method disclosed by Vance because granite is a rock material with high thermal capacity, as evidenced by Rush et al. (column 8, lines 4-6), and therefore absorbs a relatively large amount of heat before changing temperature, a property useful in cooling beverages.

11. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Large Cooling Stones" (Vance) or US Patent No. 4325230 (Driscoll et al.), in view of *Bartending for Dummies* (Foley). Vance discloses a method for cooling a beverage by replacing ice with a mass of material, stone, as already discussed above, wherein said stone is first placed in a selected environment at a first temperature, a freezer, and subsequently combined with said beverage in a selected vessel to cool said beverage. Similarly, Driscoll et al. disclose a mass of material, plastic ice cube 10, for use in cooling a beverage. Said plastic ice cube 10 is first placed in a selected environment at a first temperature, a freezer, and subsequently combined with said beverage in a selected vessel to cool said beverage, as already discussed above. Driscoll et al. also disclose the use of a plurality of said plastic ice cubes 10 for cooling a single beverage. Both Vance and Driscoll et al. fail to disclose, however, the exact method in which said mass of material, either the stone or plastic ice cubes 10 respectively, are combined



with a beverage. Foley teaches a plurality of methods to create beverages, and illustrates that it is a known practice to first place ice in a vessel and thereafter place liquid beverage in said vessel (see page 102, recipe for "Absolut Citron Rickey") or alternatively to first place liquid beverage in a vessel and thereafter place ice cubes in said vessel (see page 281, recipe for "Cranberry Collins"). Official notice is taken that the practice of placing a plurality ice cubes one at a time into a vessel containing beverage is old and well known. It would have been obvious to one of ordinary skill in the art to have combined the plastic ice cubes 10 with the beverage disclosed by Driscoll et al. in any of the methods of combining ice cubes and beverages taught by Foley since such methods are conventionally used in the art. Specifically, it would have been obvious to one of ordinary skill in the art to have first placed the cooled mass of material in said vessel prior to placing said liquid beverage in said vessel in order to prevent splashing of said beverage. It would have been obvious to one of ordinary skill in the art to have alternatively placed said liquid beverage in a vessel prior to adding the cooled mass of material so that the drinker of said beverage could sample said beverage before deciding if said beverage needs to be cooled. And lastly, it would have been obvious to one of ordinary skill in the art to have added a plurality of cooled masses of material to a beverage in a vessel one at a time, as is old and well known, because a plurality of cooled masses would provide greater cooling power, and adding them one at a time would reduce the amount of splashing of said beverage.

12. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over "Large Cooling Stones" (Vance) or US Patent No. 4325230 (Driscoll et al.), in view of US Patent No. 2334941 (Linden). Vance discloses a method for cooling a beverage by replacing ice with a mass of material, stone, as already discussed above, wherein said stone is first placed in a selected environment at a first temperature, a freezer, and subsequently combined with said beverage inherently in a selected vessel to cool said beverage. Vance fails to disclose that the selected vessel has a circular cross-section. It would have been an obvious matter of design choice to a person of ordinary skill in the art to have selected a vessel with a circular cross-section, which are known in the art, because Applicant has not disclosed that having such a cross-section provides an advantage, is used for a particular purpose, or solves a stated problem. Furthermore, although Vance discloses that said stone should be large enough to prevent swallowing, Vance fails to disclose that said stone has a dimension greater than one-half the diameter of the selected vessel. Similarly, Driscoll et al. disclose a mass of material, plastic ice cube 10, for use in cooling a beverage. Said plastic ice cube 10 is first placed in a selected environment at a first temperature, a freezer, and subsequently combined with said beverage in a selected vessel to cool said beverage, as already discussed above. Although it is demonstrated in Figure 1 that said vessel has a circular cross-section inherently having a selected diameter, Driscoll et al. fails to disclose that said mass of material has a dimension greater than one-half said selected diameter. Linden teaches the use of ice cubes 2 in combination with a ballast device 1 for

Art Unit: 3744

use in cooling a beverage within a vessel. It is clearly shown in Figure 1 of Linden that said ice cubes 2 have a dimension greater than one-half the diameter of said vessel. It would have been obvious to one of ordinary skill in the art to have chosen a stone for the method disclosed by Vance or to have modified the plastic ice cube 10 disclosed by Driscoll et al. to have the larger dimensions relative to the beverage vessel as taught by Linden because the larger dimensions relative to the vessel would provide a greater area of cooled material and provide greater cooling to the beverage contained within the vessel.

13. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 4366941 (Harris) in view of "Large Cooling Stones" (Vance) and *Bartending For Dummies* (Foley). Harris discloses a container, an ice tray, forming an enclosure and including a base portion having a plurality of bays 10 each adapted to nestably retain a selected one of a plurality of masses of materials, ice cubes 18. Said ice cubes 18 are each configured generally as a polyhedron (see Figure 3), are inherently non-porous, and are of a common size. Harris fails to disclose that said ice cubes 18 are at a solid state at a temperature of about 72 degrees F. Vance teaches a method for cooling a beverage by replacing ice cubes with stone, as already discussed above, and said stone is understood to be at a solid state at a temperature of about 72 degrees F. It would have been obvious to one of ordinary skill in the art to have replaced the ice disclosed by Harris with the stone taught by Vance because Vance expressly teaches replacing ice with stone since stone would not dilute beverages when used to cool said beverages. Harris also fails to disclose the addition of a vessel

Art Unit: 3744

having a selected maximum cross-sectional dimension. Foley teaches what materials and instruments are needed to establish a home bar. In Table 3-2, Foley teaches having ice from trays, and on pages 10-13 Foley teaches having a plurality of vessels, each inherently having a selected maximum cross-sectional dimension. Therefore, it would have been obvious to one of ordinary skill in the art to have included in a kit, the ice tray container disclosed by Harris along with the vessels taught by Foley because Foley teaches that ice trays and vessels are needed for a singular purpose, setting up a home bar. And as discussed above, it would have been obvious to one of ordinary skill in the art to have included in the kit the stone taught by Vance because Vance teaches that stone is a suitable replacement for ice in cooling drinks which would not dilute said drinks.

14. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 4366941 (Harris) in view of "Large Cooling Stones" (Vance) and *Bartending For Dummies* (Foley) as applied to claim 16 above, and further in view of US Patent No. 2334941 (Linden). The combination of Harris, Vance and Foley, as already discussed above, demonstrate a kit comprising a plurality of masses of material each configured as a polyhedron and of a common size and formed of a non-porous substance that is in a solid state at a temperature of about 72 degrees F, a container forming an enclosure and including a base portion having a plurality of bays each adapted to nestably retain a selected one of said plurality of masses of material, and a vessel having a selected maximum cross-sectional dimension. It is not expressly shown in the combination that the masses of material each have maximum dimension that is at least one-half of the

maximum cross-sectional dimension of said vessel. Linden teaches the use of masses of materials, ice cubes 2, in combination with a ballast device 1 for use in cooling a beverage within a vessel. It is clearly shown in Figure 1 of Linden that said ice cubes 2 have a dimension greater than one-half the diameter of said vessel. It would have been obvious to one of ordinary skill in the art to have selected a smaller vessel for the kit demonstrated by the combination of Harris, Vance and Foley so that the masses of materials have a maximum dimension that is at least one-half the maximum cross-sectional dimension of said vessel, as taught by Linden, since the masses of material, when cooled, would provide greater cooling to the beverage contained within the vessel.

15. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 4366941 (Harris) in view of "Large Cooling Stones" (Vance) and *Bartending For Dummies* (Foley) as applied to claim 16 above, and further in view of US Patent No. 4081024 (Rush et al.). The combination of Harris, Vance and Foley, as already discussed above, demonstrate a kit comprising a plurality of masses of material each configured as a polyhedron and of a common size and formed of a non-porous substance that is in a solid state at a temperature of about 72 degrees F, a container forming an enclosure and including a base portion having a plurality of bays each adapted to nestably retain a selected one of said plurality of masses of material, and a vessel having a selected maximum cross-sectional dimension. Although, as taught by Vance, the mass of material is stone, it is not demonstrated by the combination that said mass of material is specifically a nonporous igneous rock,

particularly granite. It would have been obvious to one of ordinary skill in the art to have used granite, a nonporous igneous rock, as the stone material in the kit demonstrated by Harris, Vance, and Foley because granite is a rock material with high thermal capacity, as evidenced by Rush et al. (column 8, lines 4-6), and therefore absorbs a relatively large amount of heat before changing temperature, a property useful in cooling beverages.

### ***Conclusion***

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. 2152467 Crosby 03-28-1939: discloses a cooling device comprising a solid shell, the device being placed in a refrigerator and subsequently placed in a vessel of beverage to cool the same.

US Patent No. 2688467 Leatzow 09-07-1954: discloses a cooling device for beverages constructed of a thermally conductive solid material that may be pre-cooled in a refrigerator and subsequently placed in a beverage to cool the beverage. It is also demonstrated that the cooling device may have a dimension greater than one-half the maximum cross-sectional dimension of the vessel containing the beverage to be cooled.

US Patent No. 4761314 Marshall 08-02-1988: discloses solid cooling devices that may take the form of a plurality of shapes, the devices being first frozen and then added to vessels beverages to cool the beverages.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard L. Leung whose telephone number is 703-306-4154. The examiner can normally be reached on Mon-Fri.

18. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Denise L. Esquivel can be reached on 703-308-2597.


Art Unit: 3744

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

19. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Richard L. Leung  
Examiner  
Art Unit 3744

rl

  
DENISE L. ESQUIVEL  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3700